

# Politics and the purchase of private herbaria by the National Herbarium of Victoria

P. S. Short

National Herbarium of Victoria, Birdwood Avenue, South Yarra, Victoria, Australia 3141

## Abstract

The National Herbarium of Victoria (MEL) has obtained large numbers of specimens through exchange, donation and the activities of its own staff. However, its importance to Australian and overseas taxonomists is largely the result of the purchase of private collections. Herbaria have been purchased from botanists such as R. A. Black, J. Drummond, C. F. Ecklon, M. Koch, F. M. Reader, O. W. Sonder, J. Stetz and F. R. M. Wilson. Notes on their content, cost and date of purchase are provided.

Ferdinand Mueller requested the acquisition of Sonder's herbarium in 1859 but the bulk of it was not purchased by the Victorian Government until 1883. The political perception of the value of scientific research is discussed in relation to this purchase.

Ferdinand Mueller was appointed Government Botanist of Victoria in 1853, retaining that office until his death in 1896. Within a few days of his appointment he commenced his first collecting trip, a journey of more than 2,500 km through eastern Victoria (Mueller 1853). He returned with a collection which is generally regarded as the foundation of the National Herbarium of Victoria (MEL) (Pescott 1982). The herbarium grew rapidly through Mueller's efforts and five years after its inception it contained about 45,000 specimens representing 15,000 species (Mueller 1858). In September 1865 it was reported to have about 286,000 specimens (Mueller 1865), in September 1868 approximately 350,000 (Mueller 1869b). More than half a million specimens were said to be present in 1888 (Mueller 1888) and three years later Mueller (1891) noted that MEL contained about 750,000 collections. Several years later he (Mueller 1894) suggested a total of approximately one million sheets.

Mueller's figures are somewhat conflicting. In a letter to A. P. de Candolle he (Mueller 1880) referred to an estimated 300,000 sheets in MEL, of which 120,000 were of Australian plants, 180,000 of extra-Australian plants. Recent estimates of the size of the MEL collections, including phanerogams and cryptogams, suggest that we have a little over one million specimens.

As with any major herbarium MEL has obtained large quantities of specimens through exchange, donation and the activities of its own staff (e.g. see Mueller 1860a, 1862). However, MEL's importance to both Australian and overseas botanists is largely the result of the purchase of private herbaria. (The term private herbaria excludes collections obtained from paid collectors who received, if not a wage, then at least some allowance to cover the cost of acquiring specimens.) In this paper an account of herbaria acquired since MEL's inception is presented. Where possible notes are provided on the content, cost and date of purchase of each herbarium. Particular attention is paid to the purchase of O. W. Sonder's herbarium,

the history of its purchase providing an insight into the political perception of scientific research and the personality of Ferdinand Mueller.

It must be stressed that additional material pertaining to MEL'S acquisition of private herbaria, particularly minor herbaria, is still likely to be located in official files. It is also certain that much information pertaining to such acquisitions was lost when F. J. Rae, a past Government Botanist and Director of the Royal Botanic Gardens, Melbourne, permitted the destruction of old records and correspondence at the time of transfer from the old to the new herbarium in 1934-1935 (Pescott 1982). This included the destruction of Mueller's incoming correspondence from both local and overseas botanists. Nonetheless it seems likely that all major purchases are included in this paper.

## Herbaria purchased after 1896

### Francis Robert Muter Wilson (1832-1903)

For many years the Presbyterian minister at Kew (Melbourne), the Rev. Wilson should possibly be regarded as Australia's pioneer lichenologist. From 1897 to 1900 he wrote at least twenty articles on lichens and described many new species (Willis 1949). Maiden (1908) indicated that Wilson's herbarium was purchased by the National Herbarium of New South Wales (NSW). However, it is evident in a letter from Professor A. J. Ewart (part-time Government Botanist, 1905-1921) to Dr G. Albo, an Italian botanist, that MEL also had a set. In the letter (dated 10 September 1907) Ewart (1907) said in part:

The material already sent was accumulated by the late Rev. Wilson during his later years, & was included in the collection purchased from his Widow after his death. I am now sending you the whole of this collection, named & unnamed, so that full comparison will be possible. The material you have already received has not been worked on by anyone else, & the whole is probably the most com-

plete collection of Australian Lichens extant, although the Sydney Herbarium has a fine set.

Two further letters from Ewart to Albo (Ewart 1908a,b) reveal that the case of lichens sent to Sicily weighed over one hundredweight (c. 45 kg) and that the Government of New South Wales had paid £100 for the set at NSW. Regrettably the letters also reveal that the lichen collection was lost in transit, having never been received by Albo. This most valuable set of specimens has never been recovered.

#### **Felix Maximilian Reader (1850–1911)**

Reader, born in Berlin and trained as a chemist, emigrated to Australia and had a chemist's business in Dimboola, Victoria in the 1890s and early 1900s. He was an assiduous collector of phanerogams and cryptogams and published many papers on the Victorian flora in the *Victorian Naturalist*. He was an expert on the grasses of the southern Wimmera and described several new species. His moss collections were dealt with by the Finnish botanist, V. Brotherus and the German, C. Müller.

Details have not been ascertained but Willis recorded that Reader's collections 'were purchased for the National Herbarium where they rank [for Victoria] second only to Williamson's in point of size and importance' (Willis 1949, p. 125). In unpublished notes (MEL library) he further recorded that Reader sold his collection to MEL in 1906.

#### **Max Koch (1854–1925)**

Koch, born in Berlin, worked at an early age as an apprentice in a merchant's office but finding the work not to his liking he travelled to Australia, arriving in 1878. For many years he worked at Mount Lyndhurst sheep station but in 1904 he left to settle in Western Australia where he was employed in saw milling work. He devoted much of his spare time to collecting herbarium specimens and seed for sale. Writing from Pemberton of his considerable botanical activities Koch (1925) noted that:

Taking into consideration that all this work has been achieved after doing 7 night shifts per week (from 1908 to 1915 and 1916 to 1919) of 12 hours duration and that several hours per day had to be given to household duties [such] as making a vegetable garden, looking after a fowl run, building and improving the house etc, the performance is probably hard to beat. It was however a labour of love and the incentive of increasing my income and thus enabling me to keep my at that time large family in more comfortable circumstances made me turn every minute to the best use. I certainly had no idle moments!

The Government Botanist of New South Wales, J. H. Maiden, used sets of Koch's collections for exchange purposes, thus building the holdings of NSW (Audas 1929).

More than 40 species were described as new from specimens collected by Koch, including the wreath lechenaultia, *Lechenaultia macrantha* Krause.

Mr J. G. Luehmann, Government Botanist at MEL immediately after Mueller's death, purchased herbarium specimens as well as seed from Koch, a fact noted by Koch (1925) in a letter to William Laidlaw, Government Botanist after Ewart. Koch stated that

Luehmann had bought 200–300 sheets of Western Australian plants. Further details are lacking.

#### **Raleigh Adelbert Black (1880–1963)**

Willis (1967) published on Black's life and herbarium. He described Black as a 'remarkable, largely self-taught and many-sided man [who] was undoubtedly the most important collector of Tasmanian vascular flora during the first half of the present century' (Willis 1967, p. 237). In 1952 Black estimated that his collection amounted to about 15,000 specimens, of which 9,000 were mounted numbers and about 6,000 were unmounted duplicates. Although the majority of the collections are Tasmanian the herbarium, not yet completely incorporated into the general holdings at MEL, contains specimens from Victoria, New South Wales, the Kimberley Ranges, Britain, Belgium and America, particularly Canada. With the exception of ferns and clubmosses no cryptogams are included. Willis (l.c.) recorded that negotiations for the herbarium's disposal commenced in 1946 with the Arnold Arboretum, Massachusetts. Offers were also sought from Canberra (CANB), Hobart (HO) and Kew (K) but Black's evaluation was deemed to be too high. The collection was eventually purchased by MEL in August 1957 for £300.

### **Herbaria purchased during Mueller's term of office as Government Botanist (1853–1896)**

#### **Minor herbaria**

The MEL library holds a single account book from Mueller's period of office as Government Botanist. It covers the years 1868–1872 (Mueller 1868–1872) and lists a number of small collections that were purchased. Other account books appear to have been casualties of Rae's wanton act of destruction. Entries are summarized in Table 1. It should be noted that the register records the acquisition of garden plants as well as herbarium material and it may well be that some of the entries in the table are for live plants. Importantly, all payments were for recently collected Australian specimens and purchase prices were low, ranging from £2/1/- for dried plants from Cape Le Grand (probably from George Maxwell) to £12/10/- for botanical specimens from Joseph Nernst of Mackay, Queensland.

Mueller (1883a), in a letter to J. Agardh, referred to a packet of algae from Israelite Bay which was purchased from, but not collected by, a Mr Webb (probably William Webb, ?1834–1897).

Details are lacking but Fischer-Benson (1890) recorded that Mueller purchased C. F. Ecklon's (1795–1868) collection of Schleswig (Germany) plants. It is also likely that MEL purchased specimens gathered by G. W. Schimper (1804–1878). Mueller reported to the government that among the contributions received at the botanical museum were 'Abyssinian plants collected by Dr. Schimper, and communicated by Professor Hochstetter, of Vienne' (Mueller 1862, p. 8). Schimper, a German botanist, resided for many years in Abyssinia and made his living by collecting and selling plants. He sold many of his specimens through the Unio Itineraria, a botanical exchange society in Ess-

Table I  
List of purchased herbaria at MEL compiled from the Government Botanist's register of accounts (Mueller 1868–1872)

Date	Purchase	Price	
		£	s d
<b>1868</b>			
24 March	'Bot. specim. bought off J. Nernst'	2	10 0
1 May	'600 bot. specim. bought off C. Stuart'	7	10 0
6 May	'Bot. specim. & seeds bought off C. Walter'	5	0 0
13 July	'Seaweeds & Acaeia seeds bought off C. Lane, Queenscliff'	2	5 0
3 Aug.	'1200 botan. specim. at pr 100 5/-'	3	0 0
11 Nov.	'Purchase of collection of bot. specimens from King's Island'	7	0 0
31 Dec.	'Purchase of collection of plants from King's Island'	8	0 0
<b>1869</b>			
6 March	'Botanical specimens bought from Jos. Nernst'	12	10 0
19 June	'Plants & seeds fr. G. Maxwell'	2	1 0
13 July	'Purchased from Sam. Hannaford, Hobart Town a collection of Tasmanian Algae'	6	5 0
14 Sept.	'Dried plants fr. Le Grand'	2	1 0
<b>1870</b>			
10 April	'Collect. of plants purchased from Ch. Stuart'	5	0 0
14 April	'Plants & seeds collected in East Gippsland'	4	10 0
<b>1871</b>			
12 Feb.	'1 collection of Queensland timber specimens, containing 36 species purchased from Mr O'Shanesy'	5	0 0
1 Aug.	'3 collect. of plants from E. Bowman, Gainsford, Peak Downs, Broadsound'	5	0 0
3 Jan.	'Collns from Percy, Lizard, Fitroy, Clermont & Howiek Isles & Cape Sidmouth, Queensland'	4	9 0
5 Jan.	'1 coll. of dried plants from Mt Wellington'	2	10 0
16 April	'1 coll. of dried plants from Mt Arrowsmith'	3	0 0
8 July	'Collection of plants from Mt Dryander purchased from E. Fitzalan & ditto from Mt Elliot'	10	0 0
3 Oct	'1 collection of dried plants & seed from Mt Elliot, purchased from E. Fitzalan'	5	0 0
<b>1873</b>			
3 March	'Large collection of dried plants for botanical museum, also palm & other seeds and living plants, collected on Lord Howe's Island purchased from Mr J. P. Fullager'	10	0 0
18 April	'Collection of dried plants from Tasmania from Th. Gulliver'	4	10 0

lingen, Germany administered by R. F. Hohenacker and E. G. von Steudel (Gunn & Codd 1981, Stafleu & Cowan 1985).

#### James Drummond (1784–1863)

Born in Scotland, James Drummond, his wife and six children settled in the Swan River Colony in 1829. Part of his income was derived from the sale of botanical specimens to overseas botanists and today his collections are to be found in about 25 herbaria (Erickson 1966). A large number of species were described from his collections, with 119 being named after him, by botanists such as George Bentham, Asa Gray, William Hooker, John Lindley and Nicholas Turczaninow.

Erickson (1966) noted that Drummond collected about 3,500 numbers for each of his subscribers and also recorded that James Drummond junior (1814–1873) sent his father's 'key collection' to MEL. Her accounts of Drummond (Erickson 1966, 1969) do not suggest that the collection was purchased and Mueller

referred to the 'late meritorious James Drummond, from whose enlightened son the Melbourne botanical museum received the whole normal collection of plants secured by his father during a long series of years in West Australia, many of the plants being solely contained as yet in this collection' (Mueller 1867, p. 212). However, in a subsequent article he stated that 'About 1859 [1863] Dr. Steetz's important collections were added by departmental purchase; later, by the same means, Mr. T. [J.] Drummond's set of West Australian plants, and various other collections' (Mueller 1888, p. 212).

Drummond's private collection must include many isosyntypes. Presumably it also includes a number of syntype specimens. Drummond himself named a few Western Australian plants, including the spectacular *Hakea victoria* Drummond.

Whether Mueller had previously acquired specimens directly from Drummond does not seem to be recorded. Most certainly MEL received some additional Drummond collections through the purchase of the private herbaria of Steetz and Sonder.

#### Joachim Steetz (1804–1862)

The subject of a recent paper (Short & Sinkora 1988), the herbarium of the Hamburg botanist Joachim Steetz was purchased in 1863 for the sum of £80 sterling. Over 160 collectors contributed specimens from more than 30 countries to Steetz's herbarium. Important contributors included N. J. Andersson, N. Binder, J. D. Hooker & T. Thomson, B. Seemann, F. W. Sieber and N. S. Turczaninow. The total size of the herbarium is unknown, but Mueller did note that it consisted of 15 large packing cases and no less than 418 packages, suggesting a minimum total of perhaps 5,000 collections.

Steetz's herbarium contains a large number of type specimens, particularly in the Compositae, a family in which Steetz specialized. From the Australian perspective the most important component of the herbarium is a set of collections gathered by Ludwig Preiss in Western Australia. The presence of the set certainly delighted Mueller and was perhaps one of the main reasons why he purchased the herbarium, although MEL already had 400 Preiss collections acquired from Sonder (Short & Sinkora l.c.).

#### Otto Wilhelm Sonder (1812–1881)

The German botanist O. W. Sonder qualified as an apothecary in Berlin in 1835 (Stafleu & Cowan 1985). Mueller noted that for more than 30 years Sonder was the proprietor of a leading pharmaceutical establishment in Hamburg and for a similar length of time was a member of the medical board. He stated that Sonder's 'zeal, ability, and great working power allowed him to carry on independent progressive work in his favourite science — that of botany — irrespective of his extensive professional engagements' (Mueller 1882a, p. 69).

Sonder's publications included an enumeration of the Epacridaceae, Stylidiaceae and the algae in Lehmann's *Plantae Preissianae*, descriptions of many families in *Flora capensis*, which he co-edited with W. H. Harvey, and a flora of Hamburg. He was also editor, and author of many families, of *Plantae Muellerianae*, published in several volumes of *Linnaea*.

### *Purchase of Sonder's herbarium*

Sonder had an enormous, private herbarium which was available for purchase during his own lifetime. The bulk of the herbarium was purchased by MEL but its acquisition was a prolonged affair. Extracts from documents pertaining to its purchase have previously been published by Margaret Willis (1949) but since then additional material has been located and is included in this summation.

The first available record relating to the purchase of Sonder's herbarium appears in a memorandum from Mueller (1859) to the Chief Secretary of Victoria. It is dated 1 November 1859. In it Mueller stated that he would respond to the government's request that he assist George Bentham in the proposed Australian flora. He added:

But I feel it my duty to inform your Honour that this proposed labour could be greatly facilitated if I could in addition to my own since the last 20 years accumulated collections (now all property of the Government) secure the great Sonderian Herbarium, which is the richest of all private botanical collections in existence. In a letter which I had lately the honour of advising on the subject to Mr Undersecretary Moore, I pointed out that such acquisition, altho' in first instance a costly one, would save the expense of time & money in accumulating gradually such herbarium, whilst the possession of such is after all everuseful, if we wish not only to keep pace with the progress of science elsewhere, but intend to advocate share in its advancement. The possession of the herbarium alluded to would render us hence, myself & my successors independent of European botanical museums, where at present alone monographic labours can be successfully executed.

In the following year Mueller (1860b) wrote to the Chief Secretary, justifying the £1,600 which he had placed on the 1861 schedule of estimates. He did not refer to the Sonder herbarium, merely stating that the money was for 'certain botanical collections, obtainable at present in Europe'. The next year Mueller (1861) suggested that 'in the original estimate of expenditure for this establishment, anticipated as requisite for 1862 and as submitted by me to the late Government. . . a reduction may be effected by omitting the item "towards the enlargement of the collections at the botanical museum £1,600", soliciting at the same time, that the grant of this particular item. . . may at a future year be favourably entertained.' Two years later he (Mueller 1863) submitted a proposal to the Undersecretary that £1,200 be placed on the estimates for 1864 for the purchase of Sonder's herbarium, the same price cited in a further memorandum submitted in 1866 (Mueller 1866).

In 1869 a payment of £120 was made to the Agent General in London (Mueller 1869). Specific documents pertaining to this purchase are not forthcoming for that year but it is apparent from a much later memorandum (Mueller 1873) that an agreement had been reached to purchase Sonder's herbarium by either ten instalments of £120 each or for a lump sum of £1,000. With this in mind Mueller (1869c), in the same year, requested that a sum of £880 be allocated for 1870.

On 6 April 1870 Mueller (1870) reported to the Chief Secretary that three cases from Sonder's herbarium had arrived safely. But no more cases and no

additional payment for specimens was forthcoming. September 1871 (Mueller 1871) saw a renewal of requests for acquisition of this 'treasure'.

Further memoranda were also forwarded in 1873 and 1874 (Mueller 1873, 1874a,b; Willis 1949, p. 106). However, no action was taken, despite the fact that at this stage of proceedings N. J. Andersson, of the Swedish Museum of Natural History (S) had approached Sonder asking to purchase his entire herbarium. He could not raise the finance but did purchase a large South African component in 1875. About the same time there had been an offer from France to purchase Sonder's Australian specimens. Mueller was apparently kept informed of Sonder's dealings (Nordenstam 1980).

Mueller persisted with his overtures and wrote to the Undersecretary in December 1881 (Mueller 1881) requesting an interview with Chief Secretary, J. M. Grant. A month later he (Mueller 1882b) again requested an interview with Grant, having just heard in the last mail that Sonder had died. He (Mueller 1882e) also wrote in February of that year to Dr L. L. Smith, member of the Legislative Assembly. The memorandum read in part:

Permit me. . . to bring under your consideration as a medical Gentleman a subject of professional and scientific importance to our colony, especially as your well known interest in science and your influence as a Minister of the Crown would greatly facilitate the object in view. The sudden death of Dr Sonder, one of the leading botanists of his age and a celebrated author of numerous works, renders now his magnificent collection of dried plants purchasable. . . So soon as his death became known in England, the British Museum offered to purchase the collection. . . but the widow of Dr Sonder, aware of my scientific intimacy and almost uninterrupted professional correspondence for nearly 40 years with her husband, declined any offer, until she had heard from me. Dr Sonder. . . was for many years anxious himself that the collections should pass into my hands, and in our correspondence he expressed himself satisfied to accept for the whole £900. . . May I therefore ask you to speak kindly on this subject to the Hon. Sir Bryan Loughlin, the Premier, and the Hon. J. M. Grant, the Chief Secretary, so that I may write a definite answer on this subject by one of the next mails.

Smith was interested. Ten days later Mueller (1882d) wrote the following, his most informative memorandum dealing with the Sonder herbarium, to him.

In reply to your question, dear Dr Smith, I beg to observe that the Sonderian Collection of dried plants contains specimens from all parts of the globe, including even numerous specimens from the least accessible parts of tropical South America, India and other parts of the globe. Indeed it is one of the very richest ever formed by a private Gentleman, and its historic value consists in the exceedingly large number of autographic specimens connected with published works, the authentic material reaching back to the earlier part of this century, when Dr Sonder commenced his interchanges with aged botanists. Numerically the collection comprises very many thousands of species, and each of them is represented by a series of specimens indicative of the geographic range and forms of varieties, thus the whole forms a huge mass of specimens, and would constitute a magnificent supplement to what I have gathered myself since 42 years. Among the gems of the collection is the unique set of Algae (Seaweeds), on which sorts of plants Dr Sonder was

one of the three great workers of this age. Indeed as a whole the collection is so valuable that any other colony even near us would gladly secure it for the botanic Museums, such authenticated collections being incalculable value for all times for reference. As instances, how much collections of great bot. authors are sought, I may remark, that some years ago Dr Meissner's collection (then at Basel and offered to me by himself in first instance) was purchased for £2,000 by an American Merchant and presented to the City of New York. When the great Lindley was on his last sickbed he also was anxious that I should secure his highly important collections for Victoria, after Sir Joseph Hooker had secured the Orchids (dried specimens) for which alone he paid five hundred £! The collection was subsequently bought for a London Institution. Therefore no difficulty exists in disposing of the Sonderian collections, which the British Museum is eager to get, but which Mrs Dr Sonder in accordance with the wish of her late husband prefers seeing pass into my hands.

[Mueller then briefly referred to placing Sonder's herbarium in the Exhibition Building. There was inadequate space at the botanic museum. He then explained how the collections were stored and referred to their cost.]

In answer to your question about the form of the collection, I may observe, that Dr Sonder kept them as usual in parcels covered by pasteboards. There are many hundreds of such parcels. They may either be kept in metal-cases or put on shelves covered by doors. The price would not exceed £900 delivered here, as the tin-lined packing cases, freight, insurance and agency expenses would not exceed £100, and perhaps be less. The transit and the payment would of course be effected through the Agent General in London. Allow me to add that I feel persuaded of not a single member of the Legislative Assembly objecting to the acquisition of such unique treasures of permanent value by the Colony of Victoria if the honorable members of the Ministry would place the sum of £900 (as a not recurring item) among the miscellaneous kindly on the estimates. [Mueller's underlining]

The Government of Victoria had been finally persuaded to purchase Sonder's herbarium. Parliament approved the expenditure of £900 for its purchase, of which £800 was to be paid to Sonder's widow with the remaining £100 covering packaging, freight and insurance costs (Mueller 1883b, Agent General 1883).

Subsequent reports to the Chief Secretary's office (Mueller 1883e,d,e, 1884) were concerned with details of payment, the handling and arrival of the herbarium, and the annexe that was built to house it. On 14 November 1883 Mueller (1883e) reported 'that the annexe to the bot. Museum is now completed, and that yesterday the 38 cases of the Sonderian Collection were placed there by the Stores and Transport Department. So soon as the repositories will be ready for the furnishing of which the public works Department is now making arrangements, I shall be able to commence the unpacking and give then and after the sorting and arranging is completed a fuller account of the contents of this large collection.'

Regrettably any such account by Mueller of the herbarium's content has not been located. But the herbarium had arrived at Melbourne — just 24 years after Mueller's initial request for its purchase!

### *Content of Sonder's herbarium at MEL*

Sonder's herbarium was enormous. Mueller (1891), in a letter to H. G. A. Engler, suggested that MEL had 750,000 specimens, 250,000 of which were part of Sonder's herbarium. The following year, in a letter to J. Agardh, he (Mueller 1892) stated that MEL had approximately one million sheets, one third of which were bought from the Sonder estate.

A detailed account of the contents of the herbarium has still to be published. However, Court (1972) reported on its general content, noting that it embraces all major plant groups within the cryptogams and phanerogams and contains thousands of autographic specimens. He suggested that the algal component was probably the most important part of the collection, containing autographic specimens, not just of Sonder, but notables such as C. A. Agardh and W. H. Harvey. Other important collections include several thousand specimens from J. G. C. Lehmann (including 800 sheets of Boraginaeae) and a large collection of South African and South American plants. The latter component contains thousands of specimens connected with C. F. P. von Martius's *Flora brasiliensis* (Anderson 1971). From an Australian perspective it was an important purchase because of the addition of further Ludwig Preiss specimens and the return of specimens transmitted to Sonder by Mueller.

Nordenstam (1980) drew attention to the fact that in 1875, during the curatorship of N. J. Andersson, the Swedish Museum of Natural History (S) acquired much of Sonder's South African collection. He also noted that a substantial set of Sonder's South African specimens exist in MEL. Nordenstam suggested that Sonder had put duplicates aside for Mueller when he prepared that part of his herbarium for removal to Stockholm. Perhaps such an action did take place but in a letter to A. P. de Candolle, three years before MEL purchased the bulk of Sonder's herbarium, Mueller (1880) drew attention to the fact that not only did he have Ecklon's collection of German plants but also a large part of his South African collection ('toute sa collection d'Allemagne, ainsi que la pluspart de cette du Sud de l'Afrique'). Similarly he noted that he had southern African specimens gathered by Zeyher and, from Sonder, a large collection of monocotyledons. Some Ecklon and Zeyher collections were acquired by MEL in 1863 as a part of Steetz's herbarium (Short & Sinkora 1988) but evidently the majority, as shown by labels in his hand, came via Sonder (Mrs D. Sinkora, pers. comm.). The evidence suggests that the three cases of specimens received from Sonder in 1870 contained Ecklon and Zeyher collections.

### *Politicians, Mueller and the Sonder herbarium*

Why was there such a long time lapse between Mueller's first request to purchase Sonder's herbarium and its acquisition in 1883? To seek an answer to this question it is necessary to realize that Mueller was not only Government Botanist but, for some time, was also the Director of the Melbourne Botanic Gardens and the Zoological Gardens. It is also necessary to assess the opinions that Mueller's bosses, the politicians, had of both him and scientific research. To do this sessions from Victorian parliamentary debates, for the years 1859–1883, have been examined.

In 1857, when he became Director, Mueller had under his control, not just the botanic gardens, but also an area encompassing the Domain and Government House reserve. Mueller introduced a series of planting schemes, including experimental planting programmes and developed, among other things, a formal systems garden (Pescott 1982). However, after 1864 there was considerable discontent with Mueller's handling of the development of the gardens. Mueller's concept of a garden, one with a scientific and educational role, did not incorporate sweeping lawns, amenity beds and beautiful vistas: it was not the botanic park desired by the public. Perhaps as a result of the public outcry William Ferguson, a regional inspector of forests, was appointed as 'Curator of the Botanic Gardens and Inspector of Forests' in 1869 (Pescott *l.c.*). There was considerable conflict between Mueller and Ferguson and in August 1871, during parliamentary debates concerning the gardens, there were accusations that Mueller had at one stage hid in the shrubbery to listen to a private conversation between Ferguson and a third party. Mueller was also accused of failing to render assistance to an ill person taken by Ferguson to the botanic museum. However, various politicians expressed general approval of Mueller. One suggested that Ferguson should be transferred 'to another scene of action, where he would not interfere with the proceedings of Dr Mueller, a gentleman who, although perhaps absurdly sensitive as to what some people cared nothing at all about — empty honours — had nevertheless rendered the most important services to science' (Victorian parliamentary debates 1871, p. 982).

With regard to Mueller's scientific services similar sentiments were expressed about a year later when it was proposed that Mueller should be given exclusive control of the 78 acres forming the Botanic Gardens, with the Domain being handed over 'to a competent landscape gardener'.

A more or less favourable response to Mueller at this stage is not surprising. For his scientific achievements he had gained, in 1867, an hereditary Barony from the King of Württemberg. But not all members were happy with Mueller, as shown by the following citations from Messrs Johnstone, Vale, Hanna and Cohen respectively (from Victorian parliamentary debates 1872, pp. 1208–1210):

Whatever Baron von Mueller's scientific abilities might be, the Botanic-gardens were in a condition disgraceful to a man with any pretensions to science. . . their appearance was in no way creditable either to Melbourne or to the colony at large.

The baron was a first-rate botanist, but an absurd and crochety man in reference to landscape gardening.

If Baron von Mueller had paid as much attention for the last 10 or 15 years to his duties as he had for the last few days in looking after members of the House, he would have done far more good to the country. He had observed the baron flying about like a will-o'-the-wisp, and moaning and groaning to Members of Parliament. . . If he had charge of him, he would have dismissed him . . . Baron von Mueller had had his way too long.

The baron wanted supreme command and would brook no control. If he could not have his own way, he tried to make out that he was a ruined man.

In the same debate Mr McLellan, a supporter of Mueller's (Victorian parliamentary debates 1872, p. 1210), said that:

The baron was a very good advocate of his own interests, and that, if he saw the baron coming along a street, he would turn back rather than meet him. At the same time, he objected to Baron von Mueller being treated in a way similar to that which had driven from the colony some twenty gentlemen whose talents could not be appreciated here, though they were appreciated elsewhere.

Another advocate of Mueller's, Mr Phillips, expressed similar sentiments in the following passage (Victorian parliamentary debates 1872, p. 1213):

The other night, when the galleries were cleared, the honourable gentleman at the head of the Government so far forgot himself as to imitate Baron von Mueller's broken English. . . It was unworthy of [the] Chief Secretary [J. G. Francis] to caricature a man possessing the high scientific attainments and European reputation of Baron von Mueller.

In June 1873 Mueller lost his position as Director of the Botanic Gardens (Pescott 1982) but retained the position of Government Botanist. In February 1876, when considering the vote for the Government Botanist, there was considerable discussion on the value of Mueller's work and reference was made to Mueller's dismissal from the directorship of the gardens. Many seemed to be impressed by Mueller's scientific achievements. Exceptions again included Mr Hanna (Victorian parliamentary debates 1876, p. 2326) who

trusted that the Government would consider the propriety of at once and for ever laying this infernal ghost of Baron von Mueller, which for a very long time past had turned up every year in the most disagreeable form possible. . . Baron von Mueller might gain sufficient brass buttons and leather medals to fill a wheelbarrow, but, in his (Mr Hanna's) opinion, it was an absolute fraud on the country to retain him in any capacity.

In August of the same year the Chief Secretary, Mr J. A. MacPherson, was asked what the country would gain by employing Mueller at £800 per annum. In reply MacPherson alluded to the high standing of Mueller among the learned societies of Europe and expressed the wish 'that Victoria, in the pursuit of wealth, would not altogether forget the highest branches of knowledge which indirectly benefited to the country to a very large extent, although the result might not be seen directly' (Victorian parliamentary debates 1877, p. 499). Another member called for an explanation as to why the vote to the government botanist's department had increased on the previous year. In reply, Mr D. Gaunson, member for Ararat, noted that (Victorian parliamentary debates 1877, p. 499):

One of the chief duties of Baron von Mueller appeared to be to produce a work on Australian plants which was distributed among a few societies and also among Members of Parliament, who as a rule, religiously pitched it upon the fire, for the reason that they were unable to understand it, and took not the slightest interest in it. Possibly it was one of the very best advertisements for Victoria that there was such a great scientific gun in the colony as the Baron. From that point of view, and after the nice little speech from the Chief Secretary as to the value of the

Baron's services was it not desirable that he should be paid a decent salary.

Mr J. Woods, member for Collingwood, reminded parliament that the colony was in some financial difficulty. He (Victorian parliamentary debates 1877, p. 500) further added that:

He had heard a great many vague statements as to the inestimable value of the department of the Government Botanist, but he could not see that it was of the slightest practical value in the colony. What plants were there in the colony which they did not know? He was speaking in a commercial sense. He quite admitted the great scientific attainments of Baron von Mueller, and the value of what the Baron might do to spread scientific knowledge, but to keep the department for that purpose, was in the present circumstances of the colony, a luxury which Victoria could not afford. He would therefore suggest that the Chief Secretary should transfer the whole of the department of the Government Botanist to New South Wales, the Government of which colony had a surplus... of money, and, consequently, could afford to maintain a department of this character.

Mueller retained his position and in 1883 he was again mentioned in parliament. On 10 April Mr J. Harris drew attention to the item of £900 for the purchase of Sonder's herbarium. He asked the then Chief Secretary, Mr G. Berry, what assurance had he of the value of the collection. Berry stated that the item had been placed on the estimates following the recommendation of Mueller and that, although he personally was 'inclined to strike out the item... in the interests of science, he held his hand' (Victorian parliamentary debates 1883, p. 161).

The aforementioned parliamentary records reflect a number of aspects which affected Mueller's chances of procuring the Sonder herbarium. During the 24 year period there had been changes in both government and ministers responsible for his department. The long term development of accord between departmental heads and ministers is not enhanced in such situations. The Colony of Victoria was also expanding rapidly. It is not difficult to see that instead of funding the purchase of a dried plant collection a government would be more likely to fund works which were seen to be critical for future development. This is particularly so in times of economic hardship — as alluded to in a statement above. It is also evident that Mueller was not just a successful scientist. He was also successful at antagonizing politicians: an achievement which would not have helped him win additional funding for any projects. Finally, the records suggest that, despite the statement that Sonder's herbarium was purchased 'in the interests of science', many Victorian politicians did not appreciate pure scientific research. And, if they did, in most cases it was probably more likely a result of Mueller's overseas standing than an appreciation arrived at through their own assessment of his work.

## Conclusions

Initially, when compiling this paper, I only planned to alert the taxonomic community to the importance of purchased herbaria in MEL, providing notes on their purchase date, price and content. Such knowledge can be most valuable to taxonomists wishing to locate

autographic material and select lectotype specimens and needs no further comment. However, I also became intrigued as to why Mueller should have had so many problems acquiring Sonder's herbarium. The findings came as no surprise. Today, as in Mueller's time, taxonomic research is not funded as well as most botanists would like. And, the career structure for research scientists is virtually non-existent in some public service departments throughout Australia. Pure research is not actively encouraged. Such a situation is partly the result of the down turn in Australia's economy but also reflects an ever present lack of appreciation of the utility of our science by many administrators and politicians. This is a strange situation when it is considered how conservation issues figure so highly in today's politics. (Who better than taxonomists to comment on rare and endangered species?)

However, rather than criticize politicians, we botanists should ask ourselves a question. Do we adequately promote ourselves?

The Australian Systematic Botany Society Inc. (ASBS) was a founding member of the Federation of Australian Scientific and Technological Societies (FASTS), a society formed three years ago to enhance communication between scientific and technological communities, governments and the public. It remains to be seen just how effective FASTS is in achieving its aim, but ASBS's membership of the society was a positive step forward. However, plant taxonomists comprise a small proportion of Australia's scientific community. I suspect we have a low profile even in this community. We must enhance our standing.

I suggest that ASBS should be the vehicle for promoting taxonomic botany through two further avenues. Firstly, the media. We need to be more outspoken, and what better way than to publicly comment on issues such as conservation. Many members of ASBS are professional botanists and tend to hold common views on this topic. Secondly, we must consider publishing popular accounts of our work. The society has been involved with the publication of several excellent works but, perhaps with the exception of the *Flora of central Australia*, they have been directed at the scientific community. If we don't take the initiative then we cannot expect an improvement in the funding of taxonomic botany.

## Acknowledgements

I thank my colleagues at MEL, particularly Miss H. M. Cohn, Dr D. B. Foreman and Mrs D. M. Sinkora, for assistance with this paper. I also acknowledge the use of unpublished information compiled by Dr J. H. Willis and thank staff at the Public Records Office of Victoria for their help.

## References

- Agent General (1883). Unpublished memorandum from the Victorian Agent General in London to the Chief Secretary's office, dated 15 June 1883. PROV, VPRS 3991, box 1418.
- Anderson, J. A. (1971). Otto Carl Berg's types of Myrtaceae in the National Herbarium of Victoria. *Muelleria* 2: 119-131.
- Audás, J. W. (1929). The botanical activities of Max Koch. *J. Roy. Soc. Western Australia* 15: 83-86.
- Court, A. B. (1972). Preliminary notice on the Sonder collection in the National Herbarium of Victoria. *Muelleria* 2: 188.
- Erickson, R. (1966). Drummond, James (1743-1863. . .). In Pyke, D. (General Ed.) *Australian Dictionary of Biography. Vol. 1, 1788-1850, A-H*. (Melbourne Univ. Press).
- Erickson, R. (1969). *The Drummonds of Hawthornden*. (Lamb Paterson Pty Ltd: Osborne Park, W.A.).

- Ewart, A. J. (1907). Unpublished letter to G. Albo, dated 10 September 1907. MEL library.
- Ewart, A. J. (1908a). Unpublished letter to G. Albo, dated 29 January 1908. MEL library.
- Ewart, A. J. (1908b). Unpublished letter to G. Albo, dated 15 July 1908. MEL library.
- Fischer-Benson, R. von (1890). Geschichte der floristischen Erforschung des Gebietes. In Prahl, P. *Kritische Flora der Provinz Schleswig-Holstein*. (Universitäts-Buchhandlung Paul Toeche: Kiel). pp. 3–64.
- Gunn, M. & Codd, L. E. (1981). *Botanical exploration of Southern Africa*. (A. A. Balkema: Cape Town).
- Koeh, M. (1925). Unpublished letter to W. Laidlaw, dated 24 January 1925. MEL library.
- Maiden, J. H. (1908). Records of Victorian botanists. *Victorian Naturalist* 25: 101–117.
- Mueller, F. J. H. (1853). First general report of the Government Botanist on the vegetation of the colony. *Victoria-Parl. papers-votes and proceedings of the Legislative Council 1853*. 1: 1–22. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1858). Annual report of the Government Botanist and Director of the Botanic Gardens. *Victoria-Parl. papers-votes and proceedings of the Legislative Assembly 1858–59*. 2: 1–27. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1859). Unpublished memorandum to the Chief Secretary's office, dated 1 November 1859. PROV, VPRS 1189, box 747.
- Mueller, F. J. H. (1860a). Annual report of the Government Botanist and Director of the Botanical and Zoological Garden. *Victoria-Parl. papers-votes and proceedings of the Legislative Assembly 1859–60*. 4: 1–16. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1860b). Unpublished memorandum to the Chief Secretary's office, dated 3 July 1860. PROV, VPRS 1189, box 748.
- Mueller, F. J. H. (1861). Unpublished memorandum to the Chief Secretary's office, dated 21 November 1861. PROV, VPRS 1189, box 749.
- Mueller, F. J. H. (1862). Annual report of the Government Botanist and the Director of the Botanic Garden. *Victoria-Parl. papers-votes and proceedings of the Legislative Assembly 1861–62*. 3: 1–11. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1863). Unpublished memorandum to the Chief Secretary's office, dated 8 October 1863. PROV, VPRS 1189, box 749.
- Mueller, F. J. H. (1865). Annual report of the Government Botanist and Director of the Botanic Gardens. *Victoria-Parl. papers-votes and proceedings of the Legislative Assembly 1864–65*. 4: 1–23. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1866). Unpublished memorandum to the Chief Secretary's office, dated 25 September 1866. PROV, VPRS 3991, box 672.
- Mueller, F. J. H. (1867). An undescribed *Casuarina* from West Australia. *J. Bot.* 5: 211–212.
- Mueller, F. J. H. (1868–72). Register of accounts, Government Botanist. [MEL library, (cf)580.7440 9945 MUE].
- Mueller, F. J. H. (1869a). Unpublished memorandum to the Minister for Crown Lands & Survey, dated 31 August 1869. PROV, VPRS 44, box 750.
- Mueller, F. J. H. (1869b). Report of the Government Botanist and Director of the Botanic Garden. *Victoria-Parl. papers-votes and proceedings of the Legislative Assembly 1869*. 3: 1–21. (Govt Printer: Melbourne).
- Mueller, F. J. H. (1869c). Unpublished memorandum to the President of the Board of Works, dated 24 December 1869. PROV, VPRS 44, box 750.
- Mueller, F. J. H. (1870). Unpublished memorandum to the Chief Secretary's office, dated 6 April 1870. PROV, VPRS 3991, box 672.
- Mueller, F. J. H. (1871). Unpublished memorandum to the Chief Secretary's office, dated 20 September 1871. PROV, VPRS 3991, box 672.
- Mueller, F. J. H. (1873). Unpublished memorandum to the Chief Secretary's office, dated 2 October 1873. PROV, VPRS 3991, box 672.
- Mueller, F. J. H. (1874a). Unpublished memorandum to the Chief Secretary's office, dated 10 October 1874. PROV, VPRS 3991, box 747.
- Mueller, F. J. H. (1874b). Unpublished memorandum to the Chief Secretary's office, dated 10 November 1874. PROV, VPRS 3991, box 747.
- Mueller, F. J. H. (1880). Unpublished letter to A. P. de Candolle, dated 4 August 1880. Conservatoire et Jardin botanique, Geneva, Switzerland.
- Mueller, F. J. H. (1881). Unpublished memorandum to the Chief Secretary's office, dated 20 December 1881. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1882a). Definitions of some new Australian plants. *Chem. & Drugg. Australas. Suppl.* 4: 68–69.
- Mueller, F. J. H. (1882b). Unpublished memorandum to the Chief Secretary's office, dated 17 January 1882. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1882c). Unpublished memorandum to L. L. Smith, dated 6 February 1882. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1882d). Unpublished memorandum to L. L. Smith, dated 16 February 1882. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1883a). Unpublished letter to J. G. Agardh, dated 13 March 1883. Univ. Library, Lund.
- Mueller, F. J. H. (1883b). Unpublished memorandum to the Chief Secretary's office, dated 16 April 1883. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1883c). Unpublished memorandum to the Chief Secretary's office, dated 24 September 1883. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1883d). Unpublished memorandum to the Chief Secretary's office, dated 20 October 1883. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1883e). Unpublished memorandum to the Chief Secretary's office, dated 14 November 1883. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1884). Unpublished memorandum to the Chief Secretary's office, dated 9 January 1884. PROV, VPRS 3991, box 1418.
- Mueller, F. J. H. (1888). The Melbourne herbarium. *Gard. Chron.* 4: 211–212.
- Mueller, F. J. H. (1891). Unpublished letter to H. G. A. Engler, dated 14 December 1891. Staatsbibliothek, Preussischer Kulturbesitz, West Berlin.
- Mueller, F. J. H. (1892). Unpublished letter to J. G. Agardh, dated 8 August 1892. Univ. Library, Lund.
- Mueller, F. J. H. (1894). Unpublished letter to J. G. Agardh, dated 31 March 1894. Univ. Library, Lund.
- Nordenstam, B. (1980). The herbaria of Lehmann and Sonder in Stockholm, with special reference to the Ecklon and Zeyher collection. *Taxon* 29: 279–291.
- Pescott, R. J. M. (1982). *The Royal Botanic Gardens, Melbourne. A history from 1845 to 1970*. (Oxford Univ. Press: Melbourne).
- Short, P. S. & Sinkora, D. M. (1988). The botanist Joachim Steetz (1804–1862). *Muelleria* 6: 449–494.
- Staffeu, F. A. & Cowan, R. S. (1985). Taxonomic literature. Edn 2, vol. 5: Sal-Stc. *Regnum Veg.* 112: 1–1066.
- Victorian parliamentary debates (1871). *Victoria. Parl. debates. Session 1871. Legislative Council and Legislative Assembly*. Vol. 13. (Govt Printer: Melbourne). p. 982.
- Victorian parliamentary debates (1872). *Victoria. Parl. debates. Session 1872. Legislative Council and Legislative Assembly*. Vol. 14. (Govt Printer: Melbourne). pp. 1178–1181, 1207–1214.
- Victorian parliamentary debates (1876). *Victoria. Parl. debates. Session 1875–1876. Legislative Council and Legislative Assembly*. Vol. 23. (Govt Printer: Melbourne). pp. 2323–2327.
- Victorian parliamentary debates (1877). *Victoria. Parl. debates. Session 1876. Legislative Council and Legislative Assembly*. Vol. 24. (Govt Printer: Melbourne). pp. 498–501.
- Victorian parliamentary debates (1883). *Victoria. Parl. debates. Session 1883. Legislative Council and Legislative Assembly*. Vol. 42. (Govt Printer: Melbourne). p. 161.
- Willis, J. H. (1949). Botanical pioneers in Victoria- III. *Victorian Naturalist* 66: 123–128.
- Willis, J. H. (1967). The late Ralceigh Adelbert Black (1880–1963) and his private herbarium. *Muelleria* 1: 233–238.
- Willis, M. (1949). *By their fruits. A life of Ferdinand Mueller, botanist and explorer*. (Angus & Robertson: Sydney).